

James River Tributary Strategy Revision

Upper James River

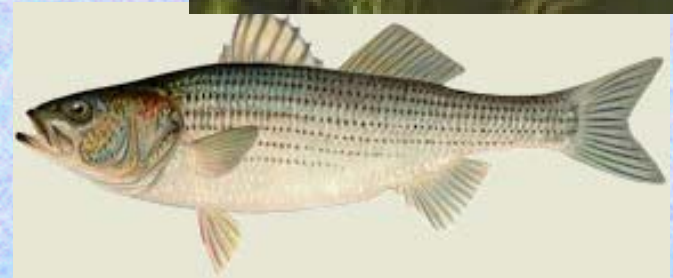
Tamara Keeler

Shenandoah Regional Manager

August 5, 2003

Purpose of Tributary Strategies

- Restore and protect aquatic habitat for living resources
- Reduce, and “cap” nutrient and sediment loads
- Identify control actions that are practical, cost-effective, and equitable
- Develop stakeholder involvement and commitments



Basis for Tributary Strategies

- Actions can't start at water's edge
- Each basin is different
- Each basin affects Chesapeake Bay differently



Basis for Tributary Strategy Program

- **State code** (tributary strategies act; Water quality improvement act)

“The plans shall be developed in consultation with affected stakeholders, including, but not limited to local government officials; Wastewater treatment operators; Seafood industry representatives; Commercial and recreational fishing interests; Developers; Farmers; Local, regional and statewide conservation and environmental interests...”

Basis for Tributary Strategy Program

- **Chesapeake 2000 Agreement:**
 - Water Quality Restoration and Protection
“complete a public process to develop and begin implementation of revised Tributary Strategies to achieve and maintain the assigned loading goals”

Why Revise Now?

- Water quality conditions redefined
- Pollution loads allocated to major river basins
- Strategy revisions due April 2004

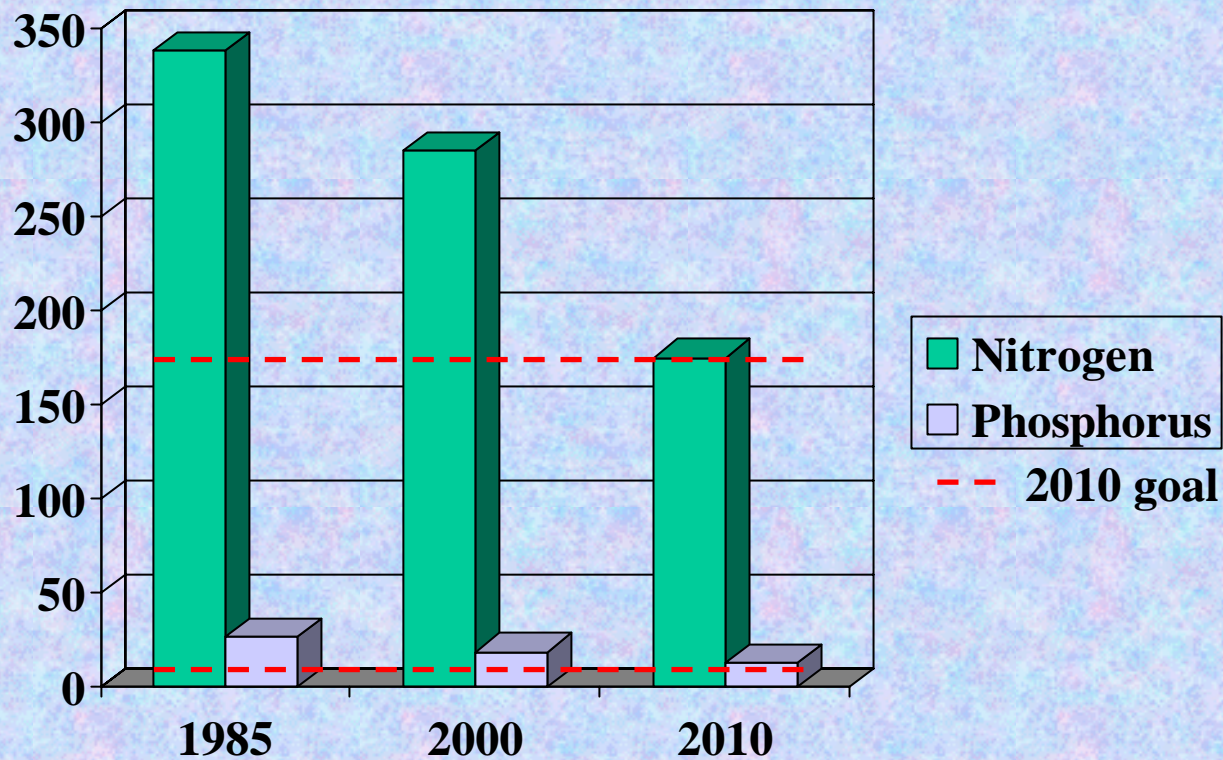
Key Considerations for Revising Tributary Strategies

- Existing strategies serve as the starting point
- A voluntary, cooperative approach
- Seeking common agreement on what needs to be done
- Principles of cost-effectiveness, feasibility, and equity are key

More Considerations

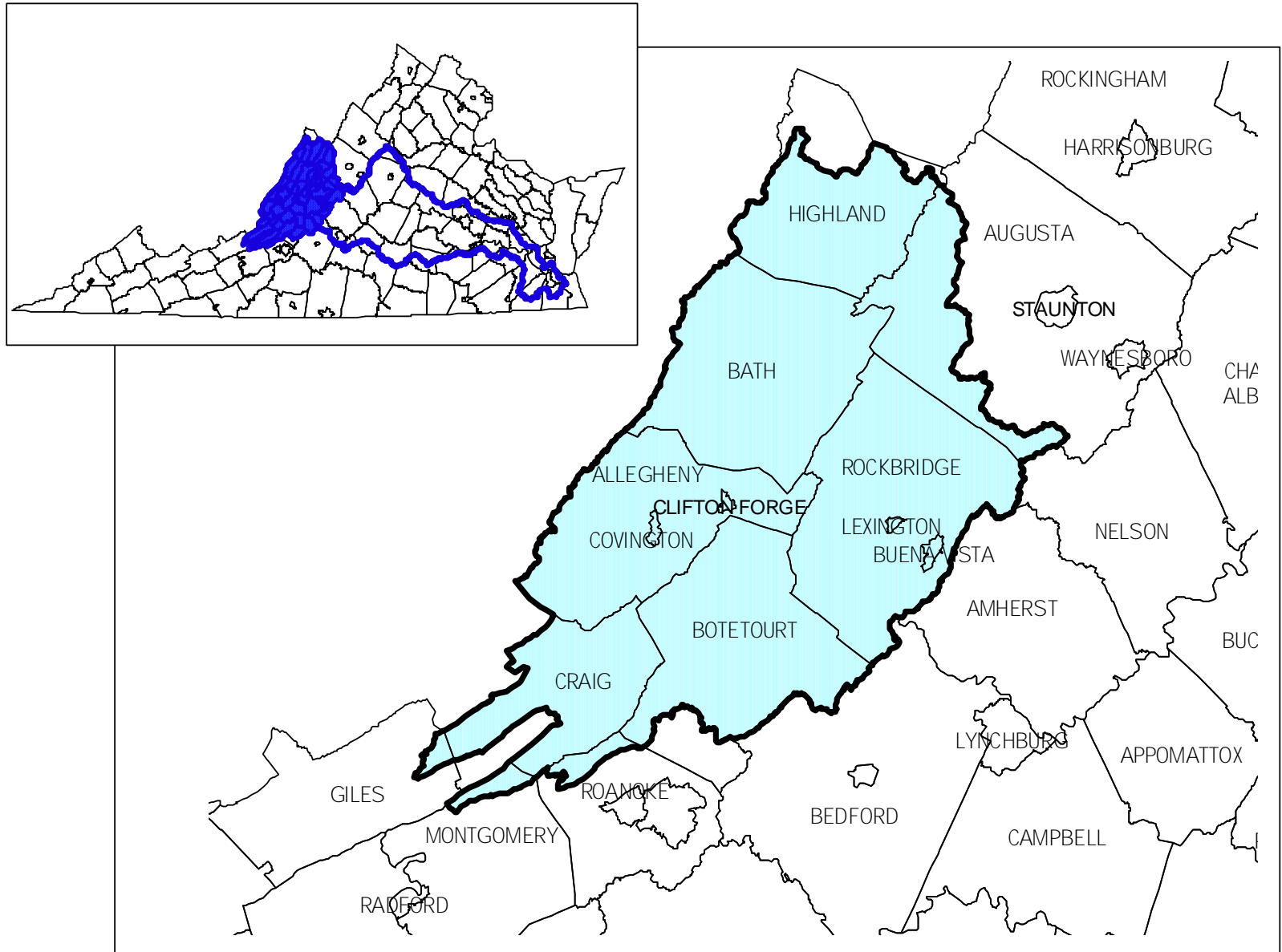
- Emphasize progress made to date
- Identify additional controls needed to achieve revised loading goals
- Bay and tidal tributaries on “impaired waters list”

Baywide N&P Change with 2010 Goal*



* *In millions of pounds per year.*

Upper James River Watershed

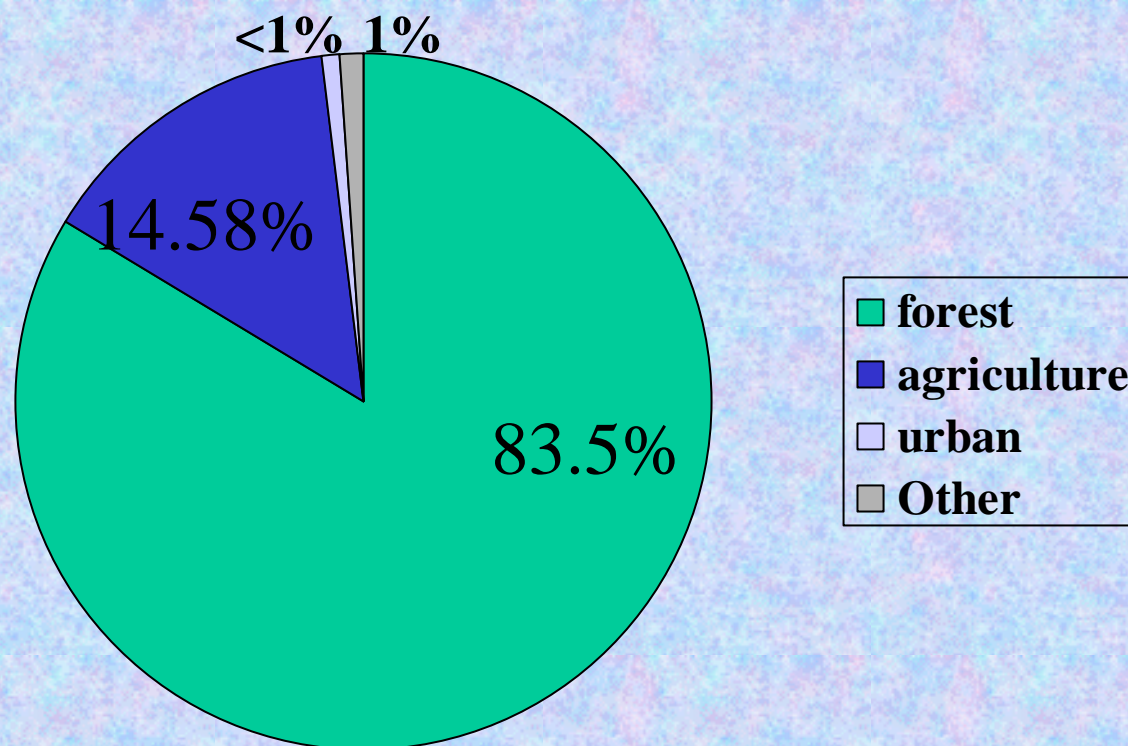


The Upper James River Watershed

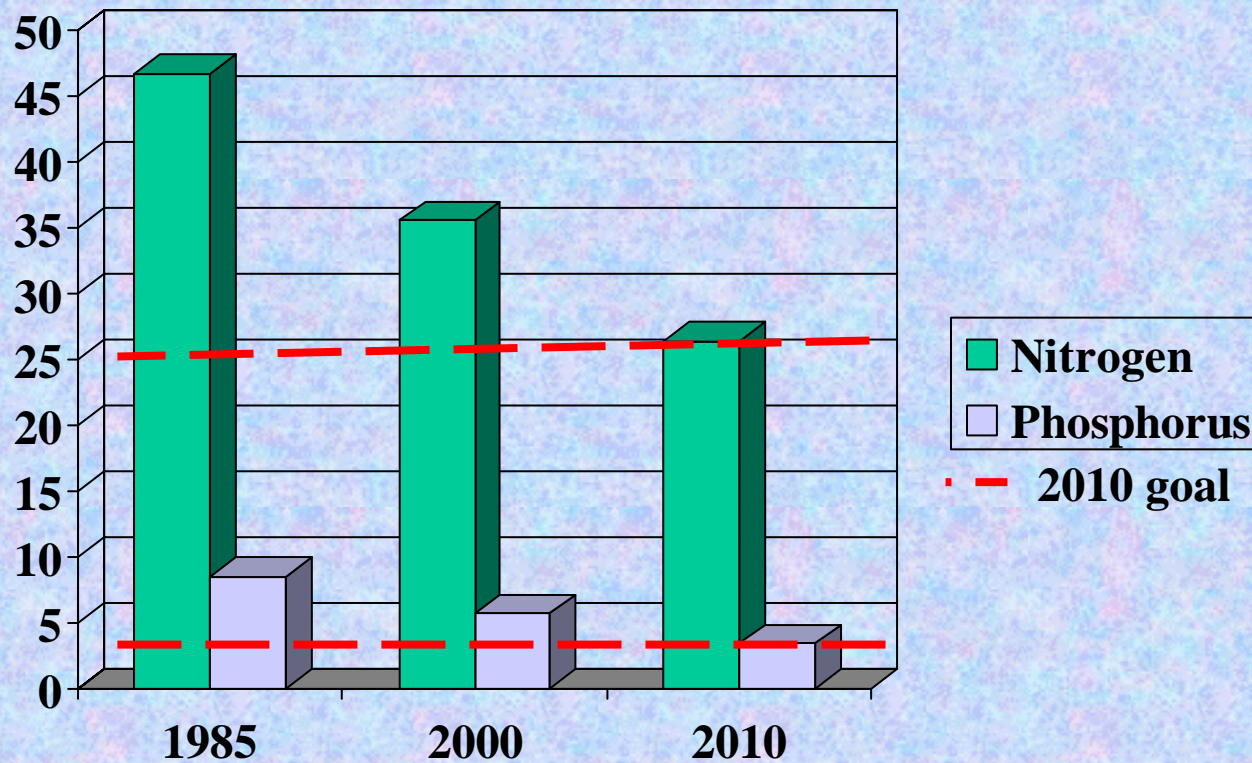
(a Basin “Snapshot”)

- Drainage: 3,095 square miles
- Counties: Alleghany, Bath, Botetourt, Craig, Rockbridge, portions of Augusta, Giles, Highland, Montgomery, Roanoke
- Population: 85,669
- Tributaries: Craig Creek, Cowpasture River, Jackson River, Maury River, Mill Creek

Land Uses in the Upper James River Watershed

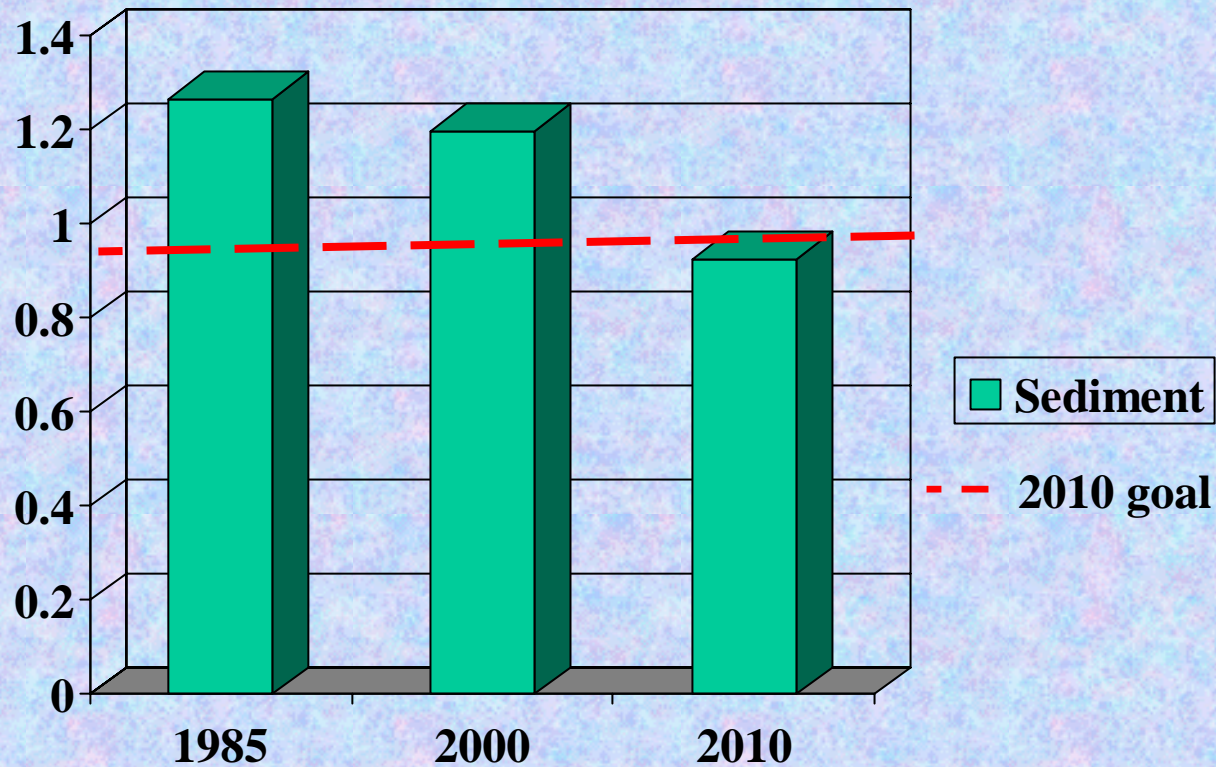


Upper James Basin N&P Change with 2010 Goal*



* *In millions of pounds per year.*

Upper James Basin Sediment Change with 2010 Goal*



** In tons per year.*

Original Tributary Strategy Goals

- 9 % sediment reduction for the entire basin by 2010
- BNR/BNR equivalent for areas draining directly to tidal fresh by 2010
- Cap net nutrient loads to the lower estuary from all areas at 1996 levels
- Reassess goals in 2005

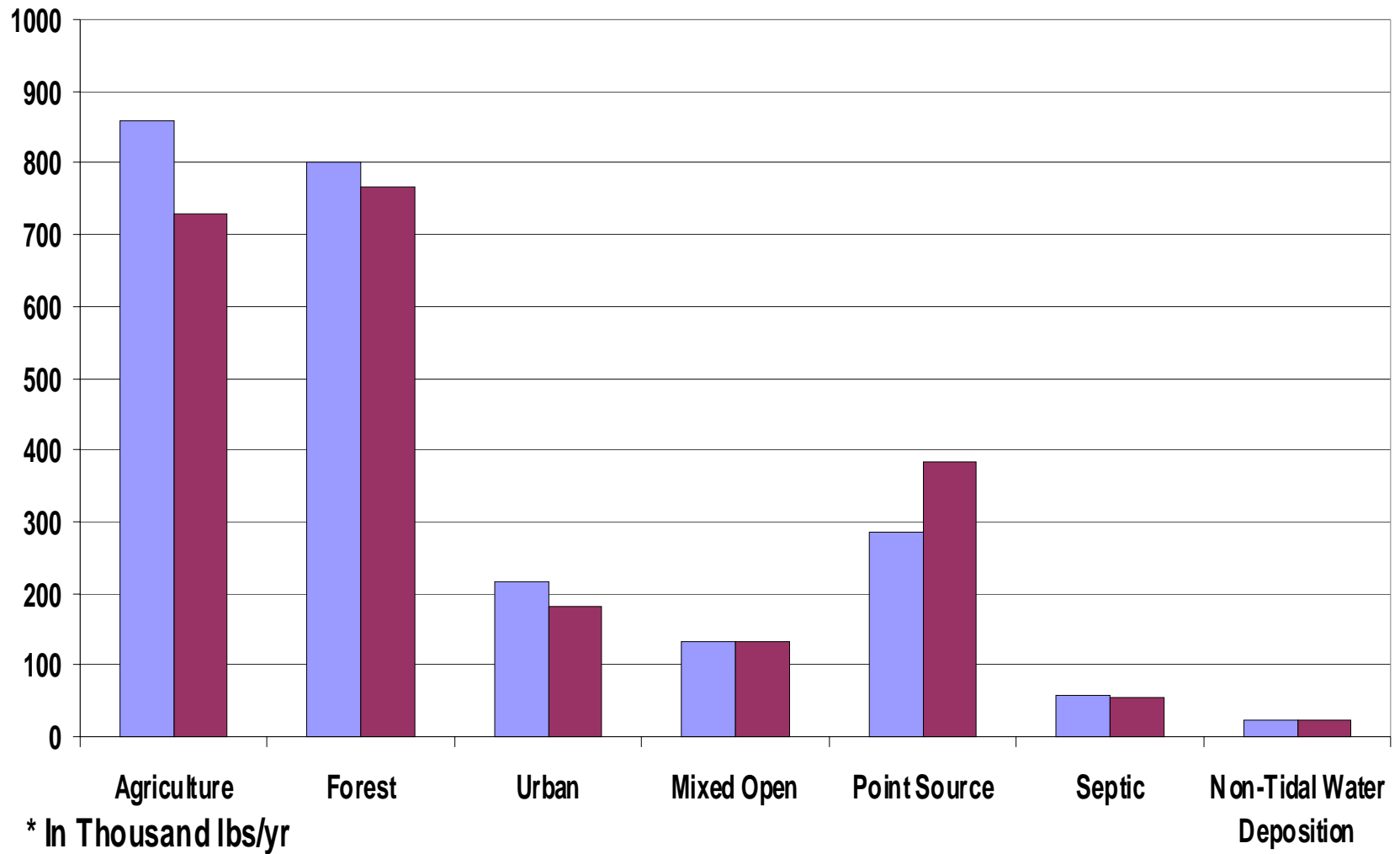




- Nitrogen (M lb/year)
 - 1985 Load: 46.0
 - 2000 Load: 35.5 (-24%)
 - 2010 Cap: 26.4 (-26%)
- Phosphorus (M lb/year)
 - 1985 Load: 8.47
 - 2000 Load: 5.69 (-33%)
 - 2010 Cap: 3.41 (-40%)
- Sediment (M tons/year)
 - 1985 Load: 1.27
 - 2000 Load: 1.2 (-5%)
 - 2010 Cap: 0.93 (-23%)

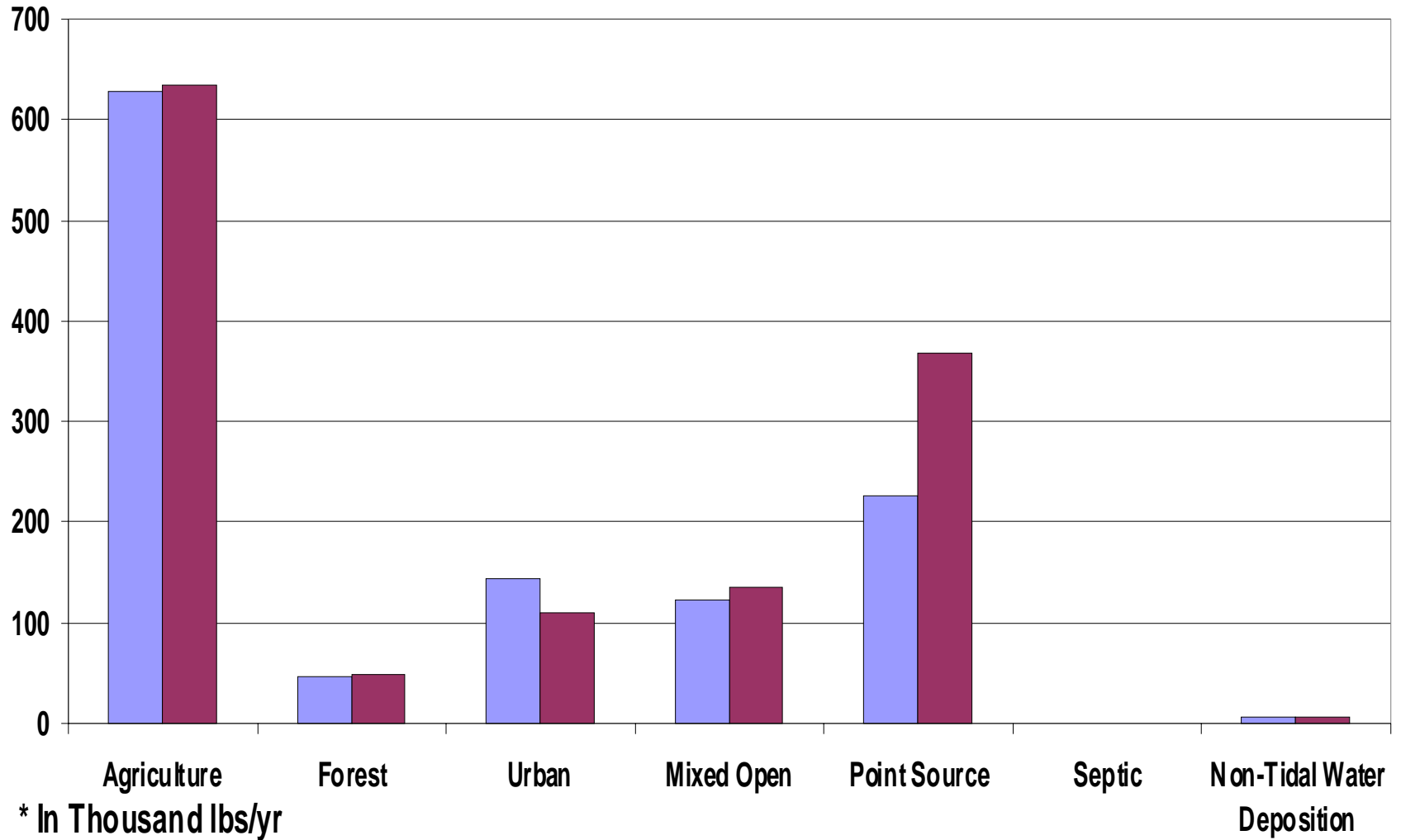
Upper James River Basin Nitrogen Loadings by Source Catagory

1985 2000



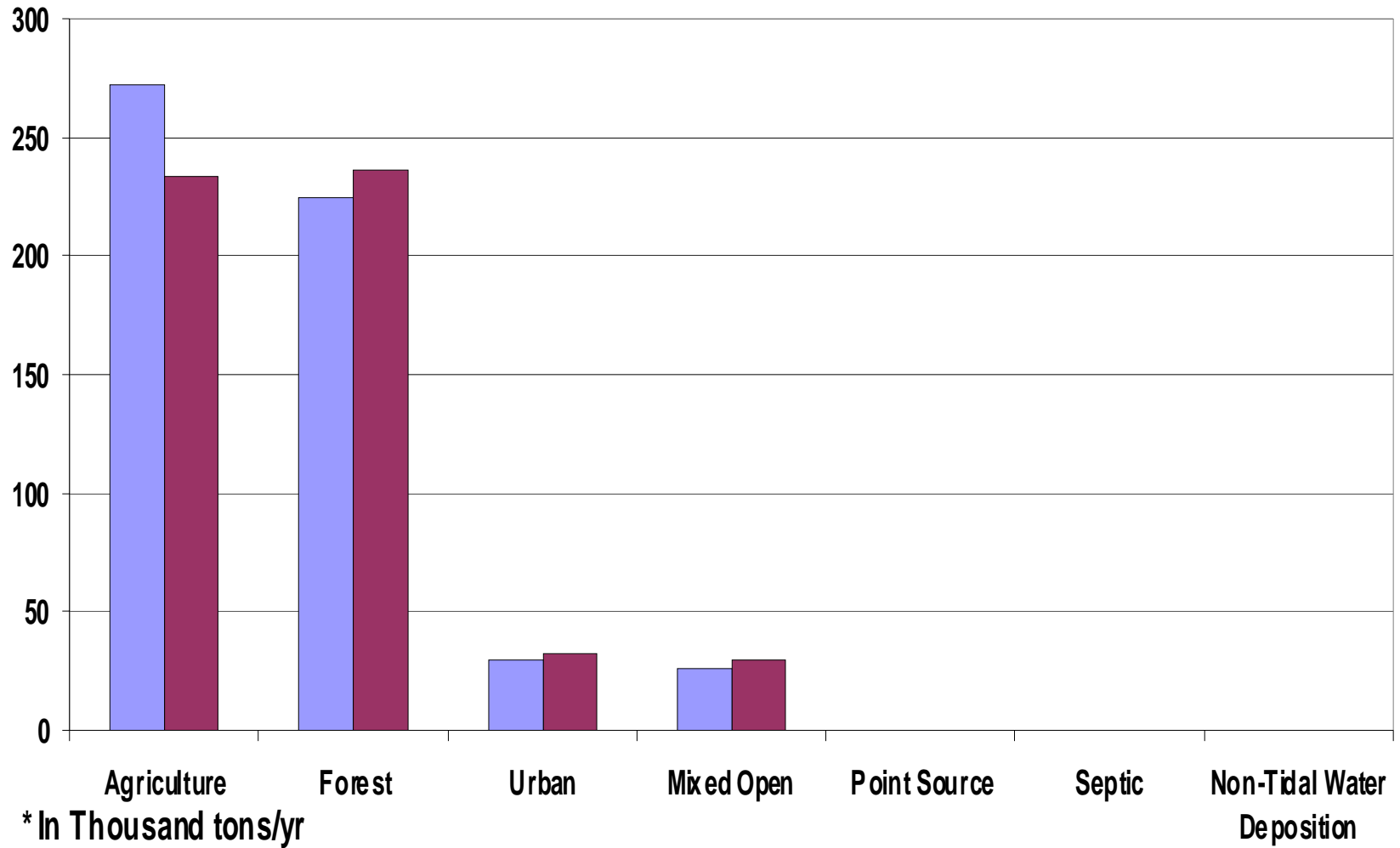
Upper James River Basin Phosphorus Loadings by Source Category

1985 2000



Upper James River Basin Sediment Loadings by Source Category

1985 2000



How Do We Get There From Here?



Stakeholder Involvement

"Trib Strategy Teams" :

- Local governments
- Planning district commissions
- Soil and water conservation districts
- Wastewater treatment facilities
- Conservation organizations
- Business interest groups
- Industry
- Citizens



Stakeholder Involvement (cont'd)

- State agencies
- Federal agencies (land management)
- Real estate associations
- Homebuilder associations



Upper James Tributary Team

- Use existing structures such as:
 - Upper James River Roundtable
- Technical assistance and review
 - State, federal agencies
 - Roundtable workgroups

Potomac River

Team Leader: Marc Aveni
Potomac Regional Manager
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Shawn Smith
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Stakeholder Group:
Potomac Watershed Roundtable

Rappahannock River

Team Leader: Matt Criblez
York & Rappahannock Regional Manager
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Alexander Adams
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Stakeholder Group:
Rappahannock River Basin Commission

Shenandoah River

Team Leader: Tamara Keeler
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Stakeholder Group:
Pure Water 2000

York River

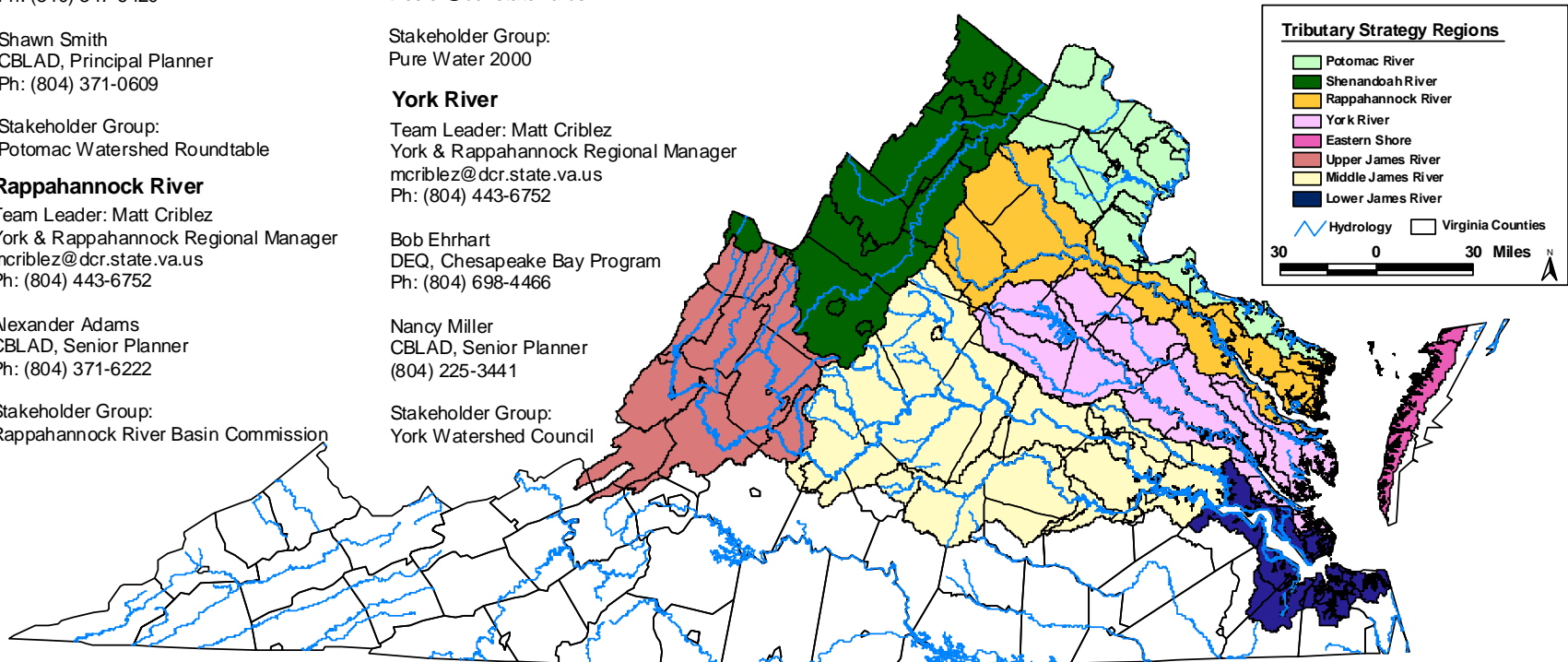
Team Leader: Matt Criblez
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Stakeholder Group:
York Watershed Council

Tributary Strategy Teams With Stakeholder Groups



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Stakeholder Group:
Upper James River Conservation Roundtable

Middle James River

Team Leader: Michael Bowman
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Stakeholder Group:
Piedmont James River Roundtable

Lower James River

Team Leader: Noah Hill
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Stakeholder Group:
Hampton Roads Lower James River Roundtable

Eastern Shore

Team Leader: Sara Grove
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Stakeholder Group:
Eastern Shore Watersheds Network

Process: *Local* Planning

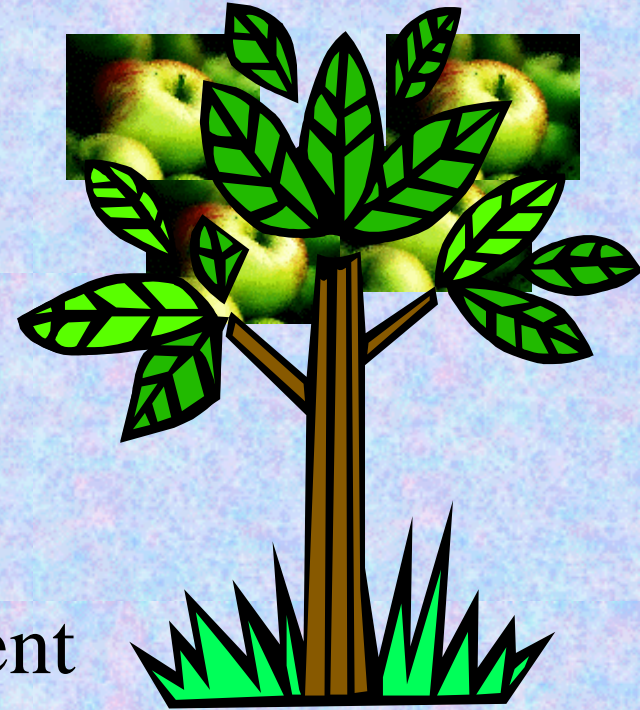
- Basin-specific process
- Local flexibility in meeting goals
- Trib team will help define process & carry out work
- Need to identify and build on past success
 - e.g. Roundtable, SWCD accomplishments
- Continuing refinement of trib strategy to reflect new actions & commitments

Local Planning

- Expand participation to ultimately include all types of land users
 - e.g. suburban homeowners – urban nutrient management
- Accent on developing very local buy-in
- Prominence of local governments
 - Land Use
 - Comprehensive Planning
- Public comment period

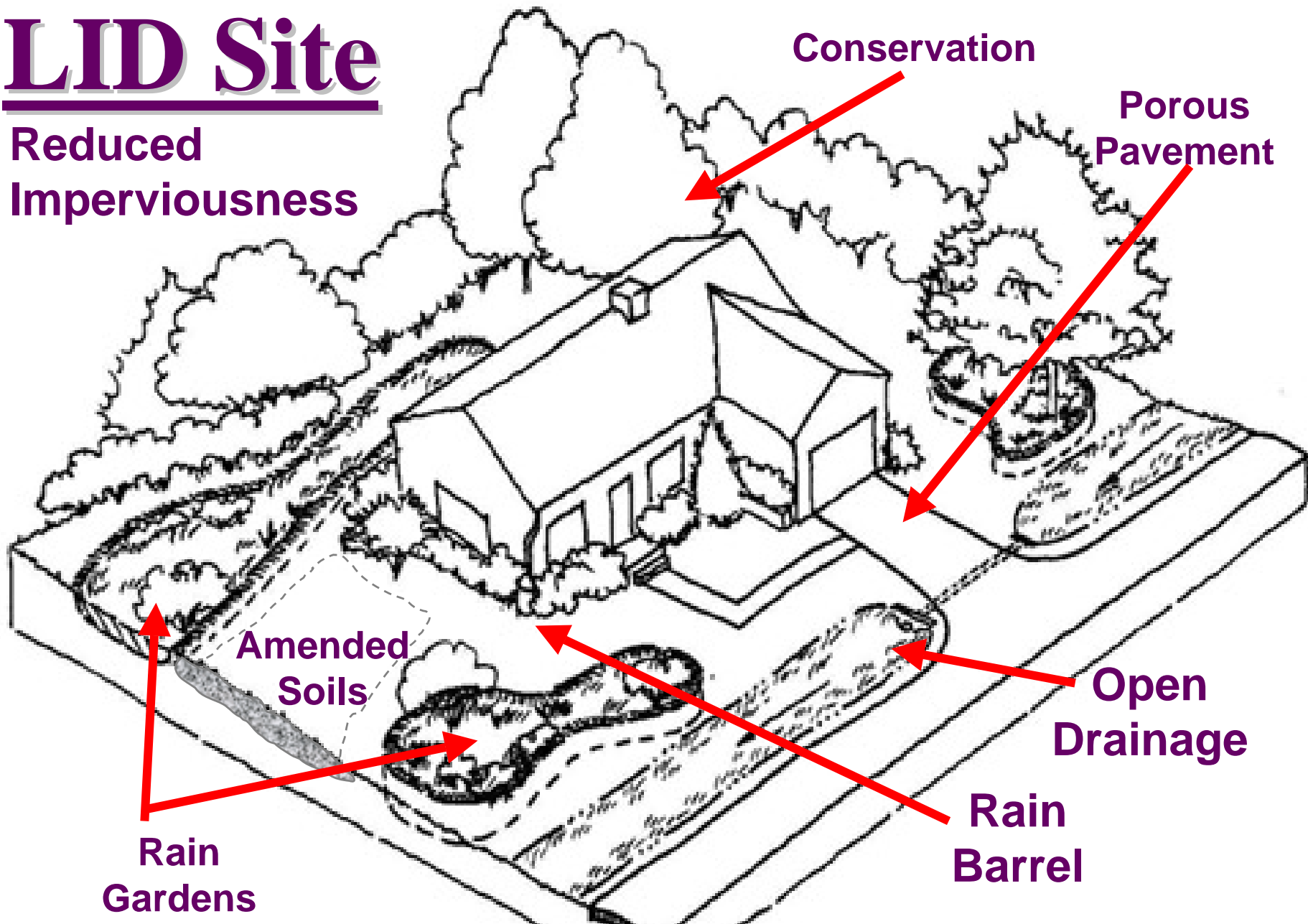
Where Do We Look for Reductions?

- Agricultural practices
- Waste-water treatment
- Urban/suburban storm water
- Land use, low impact development
- Educating the public



LID Site

Reduced
Imperviousness



How Do We Look for Reductions?

- Reductions locally with existing resources
- Reductions locally requiring new resources
- Reductions from statewide initiatives

What Tools Do We Have?

- Loads by source categories
- Extensive BMP information
- Use “scenario builder” to explore options
- Chesapeake Bay Watershed Model
- Technical expertise of Bay Program

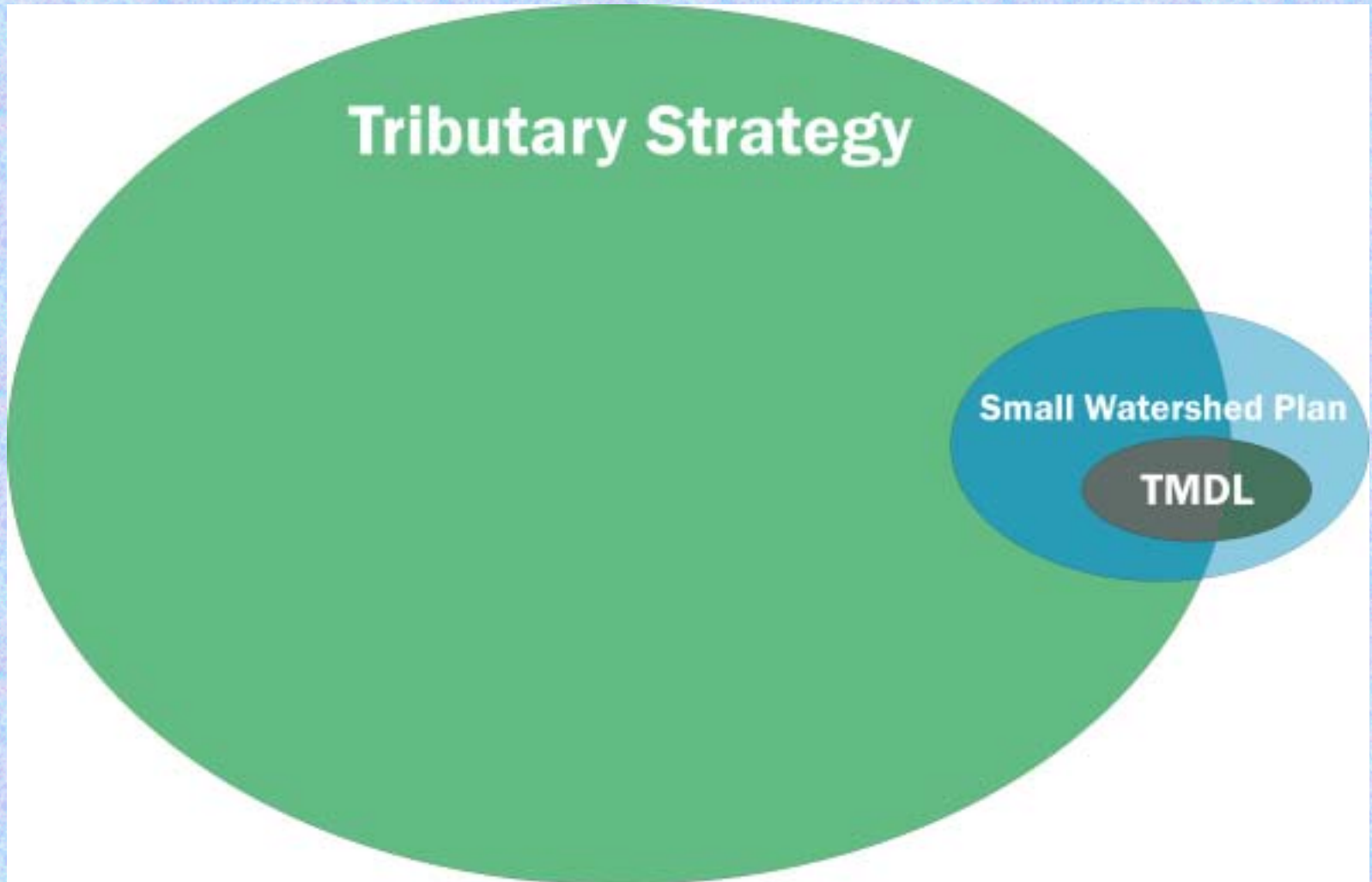
What's Included in the Revised Strategies?

- A “snapshot” of the basin
- Actions to reduce loads to meet goal
- Discussion of funding needs and options
- Tracking method for loads, reductions and cap
- Phased strategy implementation

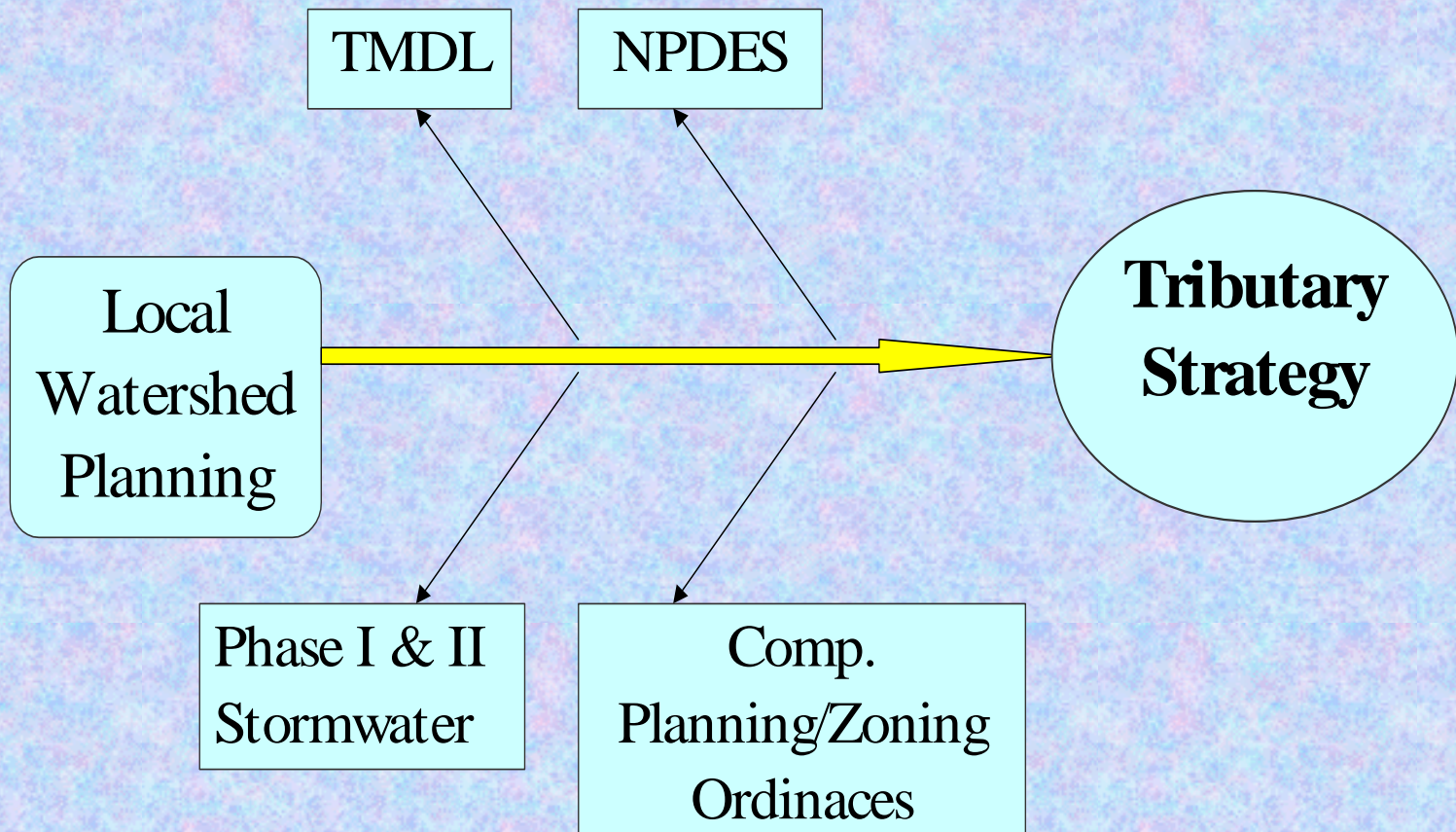
What's Included?

- Status/Progress of N, P, sediment reductions
 - Successful reductions thus far
- Specific implementation strategies
 - BMPs – what/where
 - Local government initiatives – e.g. LID
 - Point Source upgrades
 - Watershed Planning

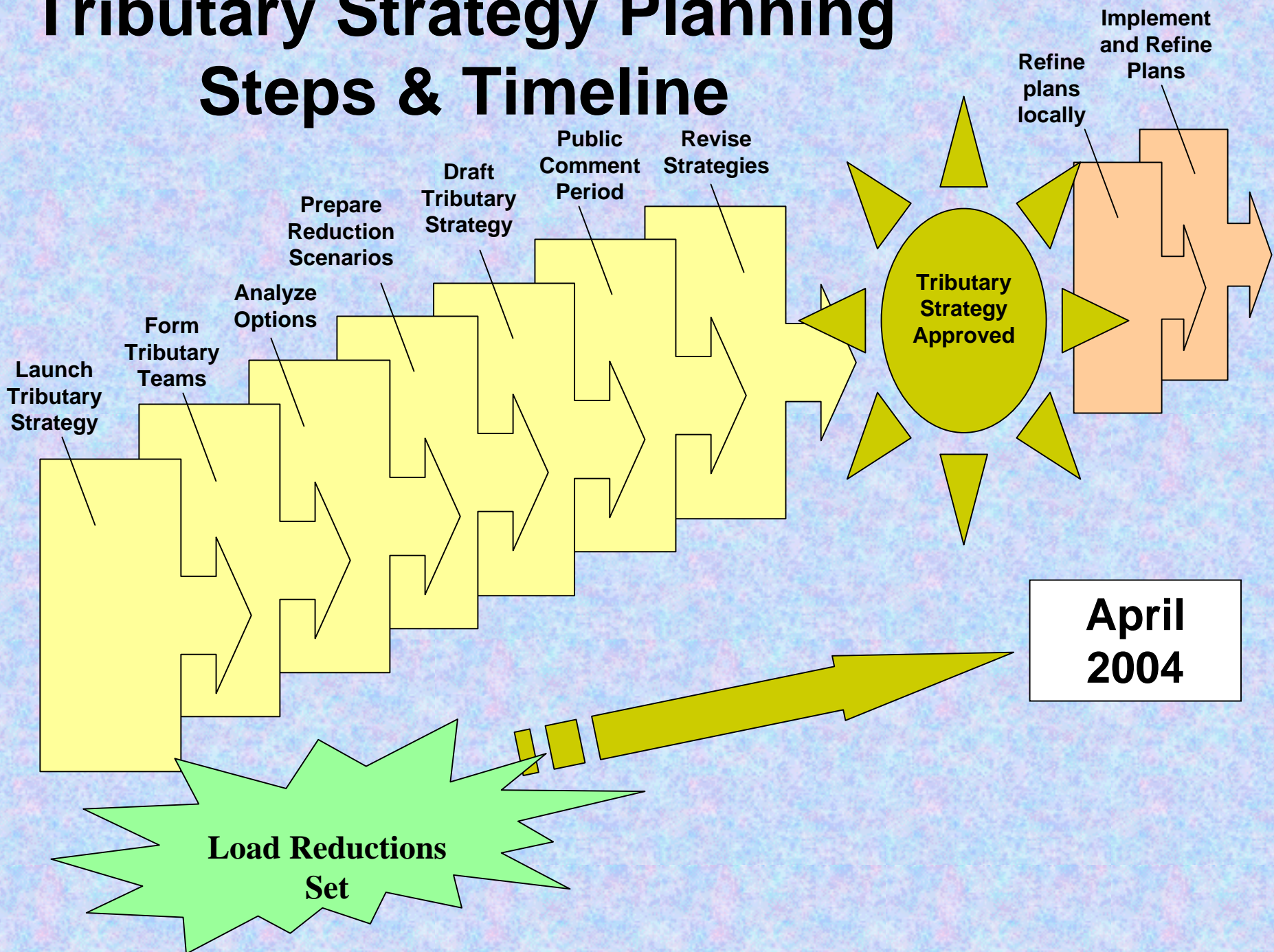
Nested Watershed Planning



Tributary Strategy Process



Tributary Strategy Planning Steps & Timeline



Proposed Timeline

- Establish Tributary Team: August 2003
- Tributary Team reviews allocations and develops scenarios: August-November 2003
- Draft Tributary Strategy: Nov/Dec 2003
- Public meetings: January/February 2004
- Revise Tributary Strategy: March/April 2004
- Deliver completed Tributary Strategy: April 2004

2004 - 2010

- Continuing refinement of Tributary Strategy
- Dynamic document
 - Implement existing programs, projects
 - Refine practices, costs, funding
 - Identify and implement new/unique/innovative programs and practices
 - Marketing strategy to engage new array of stakeholders

What is the Next Step?

- Establish a diverse, *active* Tributary Team
 - Team members that represent all sectors and areas of the Upper James basin
- Tributary Team meeting – Mid-August
- Need *commitment* by Team members
 - Revisions on *very* aggressive schedule
 - *Much* work to do
- Trib Team to conduct as much work as possible via email, conference calls, etc.
 - Let's use our time to do the work, not travel

Tributary Strategy

Website Address:

www.naturalresources.virginia.gov/

Questions ???

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